

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1708	(cir (channel adj impulse adj response)) near3 (estimat\$5 calcul\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 12:41
L2	26431	(channel) near3 (estimat\$5 calcul\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 07:32
L3	26596	1 2	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 07:32
L4	82985	plurality near2 channel	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 07:33
L5	1176	3 same 4	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 07:33
L6	4786	symbol near2 timing	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 09:52
L7	8	5 same 6	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 07:44
L8	47	(5 and 6) not 7	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 07:44
L9	17	integrat\$4 same 5	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 08:05
L10	11612	second adj antenna	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 08:05
L11	160	3 same 10	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 08:05

## EAST Search History

L12	157	11 not (8 9)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 08:39
L13	1427	mimo and 3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 08:39
L14	7471886	(sum\$4 comb\$6 add\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 08:40
L15	2014	14 near4 4	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 08:40
L16	17	13 and 15	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 08:45
L17	5410	3.clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 08:46
L18	97	15 and 17	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 09:11
L19	295	3 same antenna same timing	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 09:11
L20	78	19 same 14	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 09:13
L21	76	20 not 18	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 09:13
L22	6489	symbol near4 timing	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 09:52
L23	360	3 same 22	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 09:53

## EAST Search History

L24	95	14 same 23	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 09:53
L25	86	24 not (21 18 16 9)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 12:05
L26	40	1 same integrat\$6	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 12:35
L27	46	22 same 1	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 12:36
L28	4053	magnitude near2 squar\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 12:41
L29	8	1 same 28	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 13:38
L30	94	("20040100939" "20040105512" "20030072395" "20050249319" "20060159188" "6731668" "6850481" "7009931" "7120201" "20020122382" "20030072255" "20030165183" "20030218973" "20040131011" "20040141566" "20040179626" "20040190636" "20040192218" "20050009476" "20050099937" "20050152317" "20050190786" "20050195734" "20050220209" "20050232370" "20050254556" "20050281322" "20060002486" "20060002487" "20060023745" "20060034382" "20060034383" "20060056529" "20060087960" "20060153312" "20060187876" "20060209667" "20060209977" "20060209994" "20060250941" "20060251193" "20060252386" "20050237971" "20050281241" "20060002361" "20060193245" "20060056528" "20060153282" "6760388" "6785341" ).pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 13:43

## EAST Search History

L31	8467	training same (cir (channel impulse adj response))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 15:24
L32	260	integrat\$6 same 31	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 15:02
L33	5	22 same 32	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 15:05
L34	85	14 same 32	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 15:23
L35	757	training same (cir (channel adj impulse adj response))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 15:24
L36	100	35.clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 15:24
S1	13160	cir (carrier adj2 interference)	USPAT	OR	OFF	2006/11/17 20:27
S2	28411	diversity	USPAT	OR	OFF	2006/11/17 20:27
S3	91	S1 same S2	USPAT	OR	OFF	2006/11/17 20:53
S4	3	timing same S3	USPAT	OR	OFF	2006/11/17 20:27
S5	4	("4715048"   "4935940"   "4972423"   "5031193").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/17 20:30
S6	11	("5164964").URPN.	USPAT	OR	OFF	2006/11/17 20:40
S7	5305	second adj antenna	USPAT	OR	OFF	2006/11/17 20:40
S8	4	S1 same S7	USPAT	OR	OFF	2006/11/17 20:41
S9	13023	cir (channel adj impulse adj response)	USPAT	OR	OFF	2006/11/19 00:32
S10	17731	cir (channel adj impulse adj response)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/17 22:07
S11	67240	diversity	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/17 22:07

## EAST Search History

S12	222	S10 same S11	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/17 22:07
S13	22	timing same S12	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/17 22:07
S14	3	("5481572"   "5499272"   "5537443"). PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/17 22:18
S15	12	("5701333").URPN.	USPAT	OR	OFF	2006/11/17 22:30
S16	349	S10 near6 (combin\$5 sum\$5 add\$5)	USPAT	OR	OFF	2006/11/17 22:31
S17	688	S10 near6 (combin\$5 sum\$5 add\$5)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/11/17 22:49
S18	11139	second adj antenna	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/11/17 22:31
S19	0	S17 same S18	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/11/17 22:32
S20	100400	antennas antennae	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/11/17 22:32
S21	182	S17 and S20	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/11/17 22:32
S22	19	S17 same S20	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/11/17 22:32
S23	7	("4870579"   "5249200"   "5295136"   "5432821"   "5546430"   "5677951"   "6061444").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/17 22:37
S24	2	("6404827").URPN.	USPAT	OR	OFF	2006/11/17 22:47
S25	1357	S10 and diversity	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	OFF	2006/11/17 22:48

## EAST Search History

S26	12	S17 same integrat\$5	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/11/17 22:49
S27	3	("5228058"   "5303263"   "5519727"). PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/11/17 22:51
S28	9	("5673288").URPN.	USPAT	OR	OFF	2006/11/17 22:52
S29	616	(cir (channel adj impulse adj response)) near3 (estimat\$5 calcul\$6)	USPAT	OR	OFF	2006/11/19 00:35
S30	1708	(cir (channel adj impulse adj response)) near3 (estimat\$5 calcul\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/19 00:35
S31	132	mimo and S30	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/11/19 00:36
S32	67	timing and S31	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/11/19 14:23
S33	1708	(cir (channel adj impulse adj response)) near3 (estimat\$5 calcul\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/11/20 07:31
S34	132	mimo and S33	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/11/19 14:23
S35	67	timing and S34	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/11/19 14:23

Most frequently occurring classifications of patents returned  
from a search of 10644702 on Nov 20 , 2006

## Original Classifications

9	375/267
7	370/208
5	375/260
3	375/146
2	375/340
2	370/210
2	455/101
2	370/203
2	370/343

## Cross-Reference Classifications

3	375/260
3	375/299
3	370/344
2	375/267
2	370/208
2	370/281
2	370/480
2	375/346
2	370/334

## Combined Classifications

11	375/267
9	370/208
8	375/260
3	375/340
3	375/299
3	370/210
3	370/344
3	375/146
3	455/101
2	370/281
2	370/480
2	375/265
2	375/346
2	370/338
2	370/203
2	370/343
2	370/334

Titles of most frequently occurring classifications of patents returned  
from a search of 10644702 on Nov 20 , 2006

- 11 375/267 (9 OR, 2 XR)
  - Class 375 PULSE OR DIGITAL COMMUNICATIONS
  - 375/259 .SYSTEMS USING ALTERNATING OR PULSATING CURRENT
  - 375/260 ..Plural channels for transmission of a single pulse train
  - 375/267 ...Diversity
- 9 370/208 (7 OR, 2 XR)
  - Class 370 MULTIPLEX COMMUNICATIONS
  - 370/203 .GENERALIZED ORTHOGONAL OR SPECIAL MATHEMATICAL TECHNIQUES
  - 370/208 ..Particular set of orthogonal functions
- 8 375/260 (5 OR, 3 XR)
  - Class 375 PULSE OR DIGITAL COMMUNICATIONS
  - 375/259 .SYSTEMS USING ALTERNATING OR PULSATING CURRENT
  - 375/260 ..Plural channels for transmission of a single pulse train
- 3 375/340 (2 OR, 1 XR)
  - Class 375 PULSE OR DIGITAL COMMUNICATIONS
  - 375/316 .RECEIVERS
  - 375/340 ..Particular pulse demodulator or detector
- 3 375/299 (0 OR, 3 XR)
  - Class 375 PULSE OR DIGITAL COMMUNICATIONS
  - 375/295 .TRANSMITTERS
  - 375/299 ..Plural diversity
- 3 370/210 (2 OR, 1 XR)
  - Class 370 MULTIPLEX COMMUNICATIONS
  - 370/203 .GENERALIZED ORTHOGONAL OR SPECIAL MATHEMATICAL TECHNIQUES
  - 370/210 ..Fourier transform
- 3 370/344 (0 OR, 3 XR)
  - Class 370 MULTIPLEX COMMUNICATIONS
  - 370/310 .COMMUNICATION OVER FREE SPACE
  - 370/343 ..Combining or distributing information via frequency
  - 370/344 ...Multiple access (e.g., FDMA)
- channels
- 3 375/146 (3 OR, 0 XR)
  - Class 375 PULSE OR DIGITAL COMMUNICATIONS
  - 375/130 .SPREAD SPECTRUM
  - 375/140 ..Direct sequence
  - 375/146 ...Transmitter
- 3 455/101 (2 OR, 1 XR)
  - Class 455 TELECOMMUNICATIONS
  - 455/91 .TRANSMITTER
  - 455/101 ..Diversity
- 2 370/281 (0 OR, 2 XR)
  - Class 370 MULTIPLEX COMMUNICATIONS
  - 370/276 .DUPLEX
  - 370/277 ..Communication over free space
  - 370/281 ...Frequency division
- 2 370/480 (0 OR, 2 XR)
  - Class 370 MULTIPLEX COMMUNICATIONS
  - 370/464 .COMMUNICATION TECHNIQUES FOR INFORMATION CARRIED IN PLURAL
- CHANNELS

channels 370/480 ..Combining or distributing information via frequency  
 2 375/265 (1 OR, 1 XR)  
     Class 375 PULSE OR DIGITAL COMMUNICATIONS  
     375/259 .SYSTEMS USING ALTERNATING OR PULSATING CURRENT  
     375/260 ..Plural channels for transmission of a single pulse train  
     375/261 ...Quadrature amplitude modulation  
     375/265 ....Trellis encoder or Trellis decoder  
 2 375/346 (0 OR, 2 XR)  
     Class 375 PULSE OR DIGITAL COMMUNICATIONS  
     375/316 .RECEIVERS  
     375/346 ..Interference or noise reduction  
 2 370/338 (1 OR, 1 XR)  
     Class 370 MULTIPLEX COMMUNICATIONS  
     370/310 .COMMUNICATION OVER FREE SPACE  
     370/328 ..Having a plurality of contiguous regions served by  
 respective fixed stations  
     370/338 ...Contiguous regions interconnected by a local area network  
 2 370/203 (2 OR, 0 XR)  
     Class 370 MULTIPLEX COMMUNICATIONS  
     370/203 .GENERALIZED ORTHOGONAL OR SPECIAL MATHEMATICAL TECHNIQUES  
 2 370/343 (2 OR, 0 XR)  
     Class 370 MULTIPLEX COMMUNICATIONS  
     370/310 .COMMUNICATION OVER FREE SPACE  
     370/343 ..Combining or distributing information via frequency  
 channels  
 2 370/334 (0 OR, 2 XR)  
     Class 370 MULTIPLEX COMMUNICATIONS  
     370/310 .COMMUNICATION OVER FREE SPACE  
     370/328 ..Having a plurality of contiguous regions served by  
 respective fixed stations  
     370/329 ...Channel assignment  
     370/331 ....Hand-off control  
     370/332 .....Based upon a particular signal quality measurement  
     370/334 .....Using multiple antennas at a station